FTIP ID# ORA111207

TCWG Consideration Date June 24, 2014

Project Description

The Foothill/Eastern Transportation Corridor Agency (TCA), in cooperation with the California Department of Transportation (Caltrans), proposes to construct direct connectors between State Route 241 (SR-241) and the State Route 91 (SR-91) Express Lanes. SR-241 is a tolled facility, starting at the Oso Parkway interchange, in south Orange County, to its terminus at SR-91. The SR-91 Express Lanes is a two-lane tolled facility located within the median of SR-91, from State Route 55 (SR-55), to the Orange/Riverside County line (east of the SR 241 interchange). Currently, there is no direct connection between the SR-241 toll lanes and the SR-91 Express Lanes.

A SR-241/SR-91 high-occupancy vehicle (HOV) direct connector was previously evaluated in the Eastern Transportation Corridor (ETC) 1994 Final Environmental Impact Report/EIR/EIS. The Systems Management Concept (SMC), for the ETC project, proposed that each Build Alternative would be staged, incorporating general purpose traffic and eventually HOV lanes, to meet the forecasted demand. Under the SMC, ETC construction would be completed in one stage with three or more phases. The direct connectors were identified for Phase 2 of the ETC project.

The eastern limits of the project evaluated in the Final EIR/EIS were not clearly defined and ended approximately 4,200 feet west of Coal Canyon on SR-91. Therefore, a Supplemental EIR/EIS is being prepared to focus on the eastern portion of the project and to address changes to environmental conditions and regulatory requirements.

PROJECT ALTERNATIVES
Two alternatives are being analyzed in this document: Alternative 1 (Two-lane Express Lane Connector) and the No Build Alternative.

Alternative 1 (Two-lane Express Lane Connector)
Alternative 1 would construct a median-to-median connector between SR-241 and SR-91. The connector would bring lanes from the median of northbound SR-241 to the existing eastbound SR-91 Express Lanes. The reverse movement would also be accommodated, from the westbound SR-91 Express Lanes to the median of southbound SR-241. The connector would be tolled.

Starting at the southern end of the project, the Windy Ridge Wildlife Crossing would be widened on the southbound median side, and an additional lane and shoulder would be constructed for approximately 5,300 feet (ft). At this point, two lanes, one in both the northbound and the southbound direction, would be added by widening within the existing median area. The two new lanes for the connector would be constructed on bridge structures and fill within the area between the existing SR-241 general purpose connectors and would merge with the SR-91 mainline.

To accommodate the addition of the median-to-median connector, the existing eastbound SR 91 Express Lanes would be shifted to the south and an eastbound auxiliary express lane would be constructed along SR-91. The Gypsum Canyon on- and off-ramps and the northbound-SR-241-to-eastbound-SR-91 general purpose connector would be realigned to accommodate the SR-91 modifications. The number of existing eastbound SR-91 general purpose lanes would be maintained within the project limits.

The westbound SR-91 lanes would be restriped to accommodate the addition of the express lane that would provide for the southbound SR-241 median-to-median connector. The restriping would begin west of Coal Canyon, and would end east of the Gypsum Canyon Road Undercrossing.

The eastbound and westbound SR-91 Express Lanes would have a buffer to separate the express lanes from the general purpose lanes. The westbound SR-91 Express Lanes would have a 2 foot wide buffer, and the eastbound SR-91 Express Lanes would have 4 foot wide buffers on both sides: a buffer to the right to separate the general purpose lanes, and a buffer to the left to separate the express connector lane. In order to match the existing eastbound lanes, at the eastern terminus of the project limits, the buffers would gradually transition to a width of 0 ft.

Alternative 1 would tie into the western limits of the initial SR-91 CIP, which will extend the SR-91 Express Lanes easterly to I-15. The Alternative 1 Express Lane Connector would merge into the existing SR-91 Express Lanes, prior to the connection to the SR-91 CIP. Alternative 1 is compatible with the approved SR-91 CIP for both the initial and ultimate configurations, including the number and widths of the express lanes, express auxiliary lanes, and general purpose lanes.

Retaining walls would be required on eastbound SR-91 in order to contain the grading within the existing right-of-way.

No Build Alternative
Under this alternative, no direct toll connector would be constructed between SR-241 and SR-91. This alternative would not close the toll connector gap between SR-241 and the SR-91 Express Lanes.

Type of Project
Reconfigure existing interchange

County	**Narrative Location/Route & Postmiles:** 12-ORA-91 PM 14.7/17.9, 12-ORA-241 PM 36.1/39.1
Orange	**Caltrans Projects – EA#** 0K9700

Lead Agency: Caltrans District 12

Contact Person	**Phone#**	**Fax#**	**Email**
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Hot Spot Pollutant of Concern *(check one or both)* **PM2.5 x** **PM10 x**

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

Categorical Exclusion (NEPA)	**EA or Draft EIS**	**FONSI or Final EIS**	**PS&E or Construction**	**Other**
				x (Supplemental EIR/EIS)

Scheduled Date of Federal Action: 2014

NEPA Assignment – Project Type *(check appropriate box)*

Exempt	**Section 326 –Categorical Exemption**	X **Section 327 – Non-Categorical Exemption**

Current Programming Dates *(as appropriate)*

	PE/Environmental	**ENG**	**ROW**	**CON**
Start	2013	2013		
End	2014	2014		

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

Purpose
The purpose of the proposed project is to implement the build out of the Eastern Transportation Corridor (ETC), as approved in 1994, and attain compatibility with the proposed SR-91 Corridor Improvement Project (CIP), while minimizing environmental and financial impacts.

As stated in the 1994 Final EIR/EIS, the overall objective of the ETC project was to accommodate traffic growth associated with planned and approved development in Orange County. Specifically, the ETC project was proposed to meet the following objectives:

- To provide relief for existing freeways;
- To help achieve the Regional Mobility Plan goals of reducing emissions from transportation sources;
- To improve traffic flow on the regional transportation system;
- To reduce current and projected congestion and air pollution along portions of SR-91, the Costa Mesa Freeway (SR-55), and Interstate 5 (I-5) by providing an alternative travel route in northeast Orange County;
- To service existing and planned development consistent with the General Plans of the County and the cities in areas that will benefit from the project;
- To employ advanced transportation technology for the maximum operational and design efficiency and automatic vehicle monitoring for toll collections; and
- To implement the County of Orange Master Plan of Arterial Highways.

Need
The need for the proposed project arises from the lack of connectivity between the SR-241 and the SR-91 Express Lanes, which results in a variety of deficiencies that negatively affect traffic flow and worsen an already congested SR-91 during peak hours. These deficiencies are described below:

- Northbound vehicles on SR-241 cannot access the eastbound SR-91 Express Lanes. Access from northbound SR-241 to eastbound SR-91 is provided by means of a two-lane connector that merges with the SR-91 general purpose lanes.
- Westbound SR-91 Express Lane motorists cannot access southbound SR-241. Access from westbound SR-91 to southbound SR-241 is provided by means of a two-lane connector that diverges from the general purpose lanes.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*
Residential developments, a commercial development, a recreational vehicle park, and open spaces account for the majority of the land uses within the vicinity of the SR-241/SR-91 Interchange.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility
2017 SR-91

No Build: ADT = 303,200, Truck ADT = 14,550 (4.8%), LOS = F

Build: ADT =311,000, Truck ADT = 14,683 (4.7%), LOS = F

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

2040 SR-91

No Build: ADT = 345,400, Truck ADT = 16,580 (4.8%), LOS = F

Build: ADT =348,800, Truck ADT = 16,638 (4.8%), LOS = F

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
2017 SR-241

No Build: ADT = 52,200, Truck ADT = 887 (1.7%), LOS = A

Build: ADT = 60,000, Truck ADT = 1,020 (1.7%), LOS = A

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
2040 SR-241

No Build: ADT = 58,600, Truck ADT = 996 (1.7%), LOS = A

Build: ADT = 62,000, Truck ADT = 1,054 (1.7%), LOS = A

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*
See attached analysis

Comments/Explanation/Details *(attach additional sheets as necessary)*
See attached analysis

$PM_{2.5}$/PM_{10} Hot-Spot Analysis

The proposed project is located within a nonattainment area for federal $PM_{2.5}$ standards and within an attainment/maintenance area for the federal PM_{10} standards. Therefore, per 40 CFR Part 93 hot-spot analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

i. The proposed project is a highway expansion project. The proposed project would build a new tolled connection between State Route 241 (SR-241) and the State Route 91 (SR-91) toll lanes. Based on the *Traffic Analysis* (CH2MHill, May 2014), the proposed build alternative would increase the traffic volumes along SR-241 and SR-91. The average truck percentages along the project segments of SR-91 and SR-241 are 4.8 and 1.7 percent, respectively. Tables 1 and 2 list the average daily traffic (ADT) and truck ADT volumes along SR-91 and SR-241 for the 2017 and 2040 conditions, respectively. The largest increase in ADT due to the proposed project is 7,800 vehicles per day. However, due to the very low truck percentage on SR-241, the largest increase in truck ADT due to the proposed project is 133 vehicles per day. These increases would not exceed the 125,000 average daily trips or 10,000 truck trip criteria for a POAQC.

ii. The proposed project does not affect intersections that are at LOS D, E, or F with a significant number of diesel vehicles.

iii. The proposed project does not include the construction of a new bus or rail terminal.

iv. The proposed project does not expand an existing bus or rail terminal.

v. The proposed project is not in or affecting locations, areas, or categories of sites that are identified in the $PM_{2.5}$ and PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM_{10} or $PM_{2.5}$ violation.

Table 1: 2017 Traffic Volumes

Freeway	No Build		Build		Project Increase	
	ADT	Truck ADT	ADT	Truck ADT	ADT	Truck ADT
SR-91	303,200	14,550	311,000	14,683	7,800	133
SR-241	52,200	887	60,000	1,020	7,800	133

Source: LSA Associates, Inc. and CH2MHill (May 2014).

Table 2: 2040 Traffic Volumes

Freeway	No Build		Build		Project Increase	
	ADT	Truck ADT	ADT	Truck ADT	ADT	Truck ADT
SR-91	345,400	16,580	348,800	16,638	3,400	58
SR-241	58,600	996	62,000	1,054	3,400	58

Source: LSA Associates, Inc. and CH2MHill (May 2014).